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# Metastatic choriocarcinoma of the kidney discovered by refractory hematuria

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## METASTATIC CHORIOCARCINOMA OF THE KIDNEY DISCOVERED BY REFRACTORY HEMATURIA

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A case of metastatic choriocarcinoma of the kidney is reported. A 34-year-old married woman was referred to our department complaining of gross hematuria, fever and loin pain. Computed tomography revealed a right renal tumor with mixed density and multiple lung metastases. We performed nephrectomy to control refractory hematuria. The histological diagnosis of the tumor was metastatic choriocarcinoma. In young women, with gross hematuria, menstrual irregularity and atypical renal tumor with multiple lung metastases, metastatic choriocarcinoma of the kidney should be suspected.

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**Key words:** Choriocarcinoma, Metastasis, Renal tumor

### INTRODUCTION

Metastatic choriocarcinoma of the kidney has been rare after the advent of early diagnosis and chemotherapy. Gynecologists encounter the patients with gestational trophoblastic disease, and most urologists are unfamiliar with metastatic choriocarcinoma. We experienced a case of metastatic choriocarcinoma to the kidney discovered primarily from urological manifestations. In previous reports of metastatic choriocarcinoma of the kidney, definite diagnosis was made after nephrectomy<sup>1-4)</sup>. Reported herein is a case of metastatic choriocarcinoma of the kidney. A review of the literature is also made.

### CASE REPORT

A married 34-year-old woman suffering from gross hematuria, loin pain and spiking fever (38.0°C) was referred to our department. Computed tomography (CT) revealed a 6×5 cm, renal solid mass with mixed density suggesting hemorrhagic necrosis in the tumor (Fig. 1) and multiple lung metastases. Angiography showed a hypovascular area in the tumor (Fig. 2). After the angiography, she had massive hematuria and blood analysis showed a hemoglobin level of 10.4 g/dl to 6.9 g/dl for a few days, and the persistent gross hematuria required recurrent transfusion. Although we could not make an accurate diagnosis of the tumor, we were forced to perform nephrectomy to control refractory hematuria. Microscopic examination of the resected tumor revealed that hemorrhage and necrotic elements occupied the tumor and scattering of small foci of choriocarcinoma cells, and the renal tumor was diagnosed as metastatic choriocarcinoma. After the operation, we found a high serum level of the beta subunit of human chorionic gonadotropin ( $\beta$ -hCG) (4,000 ng/ml), and learned that she had received an

evacuation for molar pregnancy that had not been followed for two years. The irregularity in menstrual cycle continued for six months. After

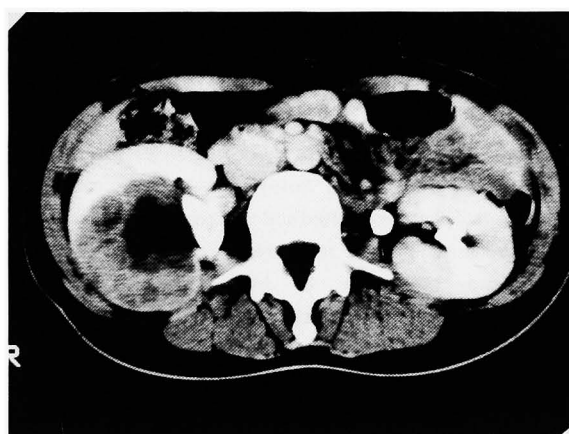


Fig. 1. Computed tomography demonstrating a mixed-density renal mass with low-density area suspected to be hemorrhage in the tumor.



Fig. 2. Angiography demonstrating a hypovascular renal tumor.

nephrectomy, she was referred to the department of gynecology and received a simple total hysterectomy. Microscopic examination revealed no residual choriocarcinoma in the uterus, and the tumor was diagnosed as metastatic choriocarcinoma with no detectable primary foci. Following surgery, combination chemotherapy (EMACO chemotherapy, consisting of etoposide, methotrexate, actinomycin D, cyclophosphamide and vincristine.)<sup>5)</sup> was performed. After seven courses of chemotherapy her serum and urine  $\beta$ -hCG returned to normal levels, and after eleven courses lung metastases almost disappeared. Now, six months after her discharge from the hospital, there is no evidence of recurrent disease.

### DISCUSSION

Gestational choriocarcinoma occurs as a complication of molar pregnancy in 50% of the cases, subsequent to abortion in 25%, after normal pregnancy in 22%, and after ectopic pregnancy in 3%<sup>6)</sup>. Most molar gestations will completely resolve after evacuation, while 3% of the cases will develop choriocarcinoma<sup>6)</sup>. Usually patients with this disease are examined by gynecologists and therefore this disease may not be familiar to most urologists. Choriocarcinoma metastasizes rapidly by the hematogenous route, the lung being the most frequent site of metastases (75%)<sup>7)</sup>. Unexpectedly renal metastases is not very rare (12%)<sup>8)</sup> and have been found in up to 48% at autopsy<sup>9)</sup>. In our case, we could not obtain her medical history because of our lack of knowledge of metastatic gestational choriocarcinoma and due to her poor intelligence. Microscopically hemorrhage and necrotic elements occupied the tumor and a scattering of small foci of choriocarcinoma cells was observed. Fine needle aspiration biopsy may be the ideal method for making a definite diagnosis, but it would be difficult to collect adequate materials. When encountering an atypical renal tumor in a young women with refractory hematuria and lung metastases, we must obtain her

medical history carefully, especially details on pregnancy and menstrual cycles. The determination of serum or urine- $\beta$ -hCG would be helpful in the diagnosis of metastatic choriocarcinoma of the kidney.

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## 和文抄録

## 難治性血尿で発見された転移性腎絨毛癌の1例

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木 村 昭 裕

34歳女性。肉眼的血尿，発熱と腰背部痛を主訴に受診。CT で腎臓に内部が不均一な腫瘍と多発性肺転移を認めた。難治性血尿コントロールのため腎摘術を行い，転移性絨毛癌と診断された。若い女性で血尿，月

経不順と多発性肺転移を有する腎腫瘍では転移性腎絨毛癌も考慮しなければならない。

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